

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: January 5, 2001

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2000\_1391SERIAL NO.  
09/680,177APPLICANT  
Mitsuaki OSHIMA et al.FILING DATE  
October 5, 2000GROUP  
2614

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AS	AA	5,243,629	9-7-93	Wei	—		
	AB						RECEIVED JAN 09 2001 Technology Center 2600
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AS	AJ	64-74836	3-20-89	Japan	T	T	abstract
↓	AK	53-108215	9-20-78	Japan	T	T	abstract
↓	AL	63-28145	2-5-88	Japan	T	T	abstract
AS	AM	64-68144	3-14-89	Japan	T	T	abstract
AS	AN	5-218978	8-27-93	Japan	T	T	X

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

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	AP	
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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AS	AA	5,311,550	5-10-94	Fouche et al.	7	7	
	AB	4,630,287	12-16-86	Armstrong			
	AC	4,271,527	6-2-81	Armstrong			
	AD	5,050,188	9-17-91	Dirr			
	AE	5,398,073	3-14-95	Wei			
	AF	5,452,015	9-19-95	Hulyalkar			
	AG	5,565,932	10-15-96	Gitta et al.			
	AH	5,481,412	1-2-96	Bannai et al.			
	AI	3,909,721	9-30-75	Bussgang et al.	7	7	

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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	NO
	AJ	0365431	4-25-90	EP	7	7		X
	AK	0485105	5-13-92	EP			X	
	AL	92/14343	8-20-92	WO			X	
	AM	89/08366	9-8-89	WO			X	
	AN	0031193	7-1-81	EP	7	7	X	

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	AO	Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands", Japan Telecommunications Review, January 1982, vol. 24, no. 1, pages 65-73.
	AP	M. Pecot et al., "Compatible Coding of Television Images, Part 2. Compatible System", Signal Processing Image Communication, October 2, 1990, no. 3, pages 259-268.
AS	AQ	Mitsuaki Oshima, "Constellation-Code Division Multiplex for Digital HDTV", IEEE, 1992, pages 1086-1092.

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AS	AA	4,227,152	10-7-80	Godard et al.	1	1	
	AB	4,525,846	6-25-85	Bremer et al.			
	AC	4,751,478	6-14-88	Yoshida			
	AD	4,891,806	1-2-90	Farias et al.			
	AE	4,903,125	2-20-90	Parker			
	AF	4,937,844	6-26-90	Kao			
	AG	5,164,963	11-17-92	Lawrence et al.			
	AH	5,555,275	9-1996	Oshima	1	1	
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	AJ	0311188	4-12-89	EP	1	1	X
	AK	0329158	8-23-89	EP			X
	AL	64-5135	1-10-89	JP			X
	AM	63-28145	2-5-88	JP			X
	AN	62-133842	6-17-87	JP	1	1	X

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	AO	Tricia Hill et al., "A Performance Study of NLA 64-State QAM", IEEE Transactions on Communications, vol. COM-31, June 1983, no. 6, pages 821-826.
	AP	Hideki Ishio et al., "A Proposal of a Carrier Digital Transmission System Using Multi-Level APSK", pages 1-20.
AS	AQ	Shanmugam, "Digital and Analog Communication Systems" 1979, p. 272.

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AS	AA	5,105,442	4-14-92	Wei			
	AB	4,048,572	9-13-77	Dogliotti et al.			
	AC	5,282,019	1-25-94	Basile et al.			
	AD	5,311,547	5-10-94	Wei			
	AE	5,267,021	11-30-93	Ramchandran et al.			
	AF	5,038,219	8-6-91	Yamashita et al.			
	AG	5,087,975	2-11-92	Citta et al.			
	AH	5,086,340	2-4-92	Citta et al.			
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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AJ	53-137657	12-1-78	JP			X
	AK	0282298	9-14-88	Europe			X
	AL	0392538	10-17-90	Europe			X
	AM	0490552	6-17-92	Europe			X
	AN	0506400A2	9-30-92	Europe			

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	AO	Khaled Fazel et al., Combined multilevel coding and multiresolution modulation, February 8, 1993, Pages 1081-1085
	AP	P. Hoeher et al., Performance of an RCPC-Coded OFDM-based Digital Audio Broadcasting (DAB) System, IEEE Global Telecommunications Conference "Globecom '91", December 2-5, 1991, Vol. 1 of 3, Pages 2.1.1 - 2.1.7
AS	AQ	K. M. Uz et al., Combined multiresolution source coding and modulation for digital broadcast of HDTV*, 1992, Pages 283-292

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AS	AA	5,142,353	8-25-92	Kageyama et al.	1	1	
	AB	5,197,061	3-23-93	Halbert-Lassalle et al.	1	1	
	AC	5,291,289	3-1-94	Hulyalkar et al.	1	1	
AS	AD	5,166,924	11-24-92	Moose	1	1	
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AS	AJ	0448492A1	9-25-91	Europe	1	1	X
	AK	0485108A2	5-13-92	Europe	1	1	X
	AL	0525641A2	2-3-93	Europe	1	1	X
	AM	0540231A2	5-5-93	Europe	1	1	X
	AN	0531046A2	3-10-93	Europe	1	1	X

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	AO	K. M. Uz et al., Multiresolution Source and Channel Coding for Digital Broadcast of HDTV, 1992, Pages 61-69.
	AP	Nambi Seshadri et al., Multi-Level Block Coded Modulations with Unequal Error Protection for the Rayleigh Fading Channel, Vol. 4, No. 3, May-June 1993, Pages 325-334.
AS	AQ	William F. Schreiber, Spread-Spectrum Television Broadcasting, SMPTE Journal, August 1992, Pages 538-549.

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AS	AO	Martin Vetterli et al., Multiresolution Coding Techniques for Digital Television: A Review, Multidimensional Systems and Signal Processing, Volume 3, May 1992, Pages 161-187.
	AP	Ezio Biglieri et al., Introduction to Trellis-Coded Modulation with Applications, April 6, 1992, Pages 173-207.
AS	AQ	English Language Abstract of European Patent No. 93 30 7575

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<i>AS</i>	AA	4,636,876	1-13-87	Schwartz	<i>T</i>	<i>T</i>	
	AB	4,855,692	8-8-89	Kennard et al.			
	AC	4,873,701	10-10-89	Tretter			
	AD	4,958,360	9-18-90	Sari			
	AE	5,115,453	5-19-92	Calderbank et al.			
	AF	5,168,509	12-1-92	Nakamura et al.	<i>—</i>	<i>—</i>	
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	AJ	0122805	10-24-84	EP	<i>—</i>	<i>—</i>	X
	AK	63-180280	7-25-88	JP	<i>—</i>		abstract
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	AO	Kazuhiko Nitadori, Synthesis of Multichannel Orthogonal VSB Signals by Quadrature Method, 1976 International Conference on Communications, June 14-16, 1976, Volume 1, Pages 3-25 - 3-29.
	AP	Thomas M. Cover, Broadcast Channels, IEEE Transactions on Information Theory, January 1972, Pages 2-14
<i>AS</i>	AQ	"Optimum Weighted PCM for Speech Signals", Sundberg, IEEE Transactions on Communications, Volume COM-26, No. 6, June 1978, Pages 872-881.

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U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE APR 10 2001LIST OF REFERENCES CITED BY APPLICANT(S)  
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2614

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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	AB						<i>APR 11 2001</i>
	AC						<i>Technology Center 2600</i>
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<i>AS</i>	AJ	2-166979	6-27-90	Japan	—	—	abstract
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	AM						
	AN						

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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AS	AJ 04-196822	7-16-92	Japan	—	—	abstract
AS	AK 0 506 400	9-30-92	Europe	—	—	X
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	AM					
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